

Chemotherapy

This fact sheet is for men who are thinking about having chemotherapy to treat their prostate cancer. It describes how chemotherapy is used to treat prostate cancer as well as the possible side effects. We hope that it will help you make decisions with your specialist team about your treatment. Each treatment centre will do things slightly differently so use this fact sheet as a general guide and ask your specialist team for more details about the treatment you will have.

Who can have chemotherapy?

Chemotherapy is a treatment option that may be suitable for men who have prostate cancer that has spread to other parts of the body (advanced prostate cancer) and is no longer responding to hormone therapy. Chemotherapy is used to help control symptoms and not to cure prostate cancer. Some men may be offered chemotherapy at an earlier stage of their disease as part of a clinical trial. You can read more about clinical trials on page 2.

Chemotherapy may not be suitable for every man. If your specialist, usually your oncologist, thinks that you may benefit from chemotherapy they will first assess your general health. This may involve checking that your heart, lungs, liver and kidneys are working normally, as well as making sure that you are well enough to care for yourself with some occasional help. The side effects of chemotherapy are sometimes difficult to cope with so you need to be reasonably fit before you begin treatment.

You and your specialist team will need to consider the possible side effects alongside the possible benefits of the treatment before making a decision about whether to go ahead.

Other possible treatments include oestrogens and steroids. Your doctor will also discuss options such as palliative radiotherapy, bisphosphonates or pain-relieving drugs, which can be used to help control your symptoms. You can read more

about these treatments in our Tool Kit fact sheets on **Palliative radiotherapy** and **Bisphosphonates**. We also have a fact sheet on **Pain and advanced prostate cancer**.

How does chemotherapy treat prostate cancer?

Chemotherapy uses anti-cancer (cytotoxic) drugs to kill cancer cells. It can be used to help treat cancer cells that have travelled through the blood stream to other parts of the body, such as the bones.

The main aims of chemotherapy treatment for prostate cancer are to help:

- Shrink the cancer
- Slow the growth of the cancer
- Control symptoms such as pain
- Improve your quality of life

There are several chemotherapy drugs available to treat prostate cancer. The most common ones are docetaxel (Taxotere) and mitoxantrone (Novantrone). Chemotherapy drugs are sometimes given alongside other treatments such as palliative radiotherapy, bisphosphonates or pain-relieving drugs. You may also be given steroids such as prednisolone with your chemotherapy to help make the treatment more effective.

Clinical Trials

A number of clinical trials are currently looking into chemotherapy to treat prostate cancer.

Researchers are trying to find out how chemotherapy can be used most effectively to treat prostate cancer. This includes looking at how well the different drugs work and when it is best to use them.

You can ask your specialist whether there are any clinical trials that you could take part in at your hospital or at other treatment centres in the UK. For more information read our Tool Kit fact sheet **A guide to prostate cancer clinical trials**.

Docetaxel

In the UK, docetaxel is the standard treatment option for men with advanced prostate cancer that is no longer responding to hormone therapy. Research has shown that using a combination of docetaxel (Taxotere) and prednisolone can help to reduce symptoms such as pain, improve quality of life and increase survival.

Treatment with docetaxel involves up to ten treatment sessions. You will usually be given three or four sessions to begin with. If your cancer is responding well and you do not have too many side effects from the treatment, you will continue to have up to a maximum of ten sessions.

If during treatment your cancer continues to grow or you have severe side effects you will need to stop treatment.

If you are unable to have docetaxel or it has not worked for you, your doctor may:

- Offer you an alternative chemotherapy drug. This will depend on whether you are well enough to cope with the treatment.
- Offer you treatment to help with any symptoms you may have. For example, you may be offered palliative radiotherapy or bisphosphonates to help relieve bone pain.

What are the advantages and disadvantages?

Advantages

- Treatment may improve your quality of life by controlling symptoms such as pain.
- It may shrink or slow the growth of your cancer.
- There is no need to stay overnight in hospital. You will usually visit as a day patient.

Disadvantages

- You will need regular hospital visits.
- There is no guarantee that it will help control the cancer or its symptoms.
- Chemotherapy treatment can cause side effects.

What does treatment involve?

Your doctor will plan your treatment with you. They will discuss with you which drugs you are going to have, how long the treatment will take, possible side effects and tests that you will need before, during and after your treatment.

It can be very hard to take all this in during one session with your medical team. It can help to write things down or bring someone with you to listen and discuss things with later. You should also be given written information to take home. If you are uncertain about anything, ask your medical team to explain. There is a list of suggested questions to ask your doctor towards the end of this fact sheet.

If your chemotherapy treatment is part of a clinical trial, your specialist doctor and research nurse will give you the full details of what this involves and you will need to sign a consent form before you begin treatment.

Before treatment

Before each treatment session begins you will need to have a blood test to check your blood count. This test is used to make sure the amount of different blood cells in your body are within normal limits. This is important because chemotherapy can cause the level of blood cells to drop. You can read more about the possible side effects of treatment on page 3.

You may also need blood tests to check how well your liver and kidneys are working. This is because chemotherapy drugs are broken down by the liver and passed out of your body via the kidneys. Depending on your general health and the drugs that you are taking you may need to have some other tests before your treatment begins.

Always let your specialist cancer team know if you are taking any other medication, including dietary supplements (such as vitamins and minerals) or herbal medicines. We cannot be certain how these may affect chemotherapy treatment and your team may advise you to avoid some of these while you are having treatment.

Treatment

Most chemotherapy drugs are given as a course of up to ten sessions (cycles) of treatment. This will depend on the type of drug you are having. At each treatment session you will be given the chemotherapy drug through a drip (infusion). This involves running a liquid containing the drug through a fine tube (cannula) into a vein in your arm. This allows the drug to enter the bloodstream and travel throughout the body.

You will have treatment every three or four weeks. A treatment of docetaxel takes about one hour (this may differ from other chemotherapy drugs). If your blood count is not high enough to cope with a cycle of treatment your doctor may decide to reduce your dose of chemotherapy or delay the cycle. Once your blood count returns to normal you can continue with your treatment.

Your doctor may give you steroid tablets such as prednisolone, as part of your chemotherapy treatment. Your doctor will give you more information about when to take these tablets.

At your first appointment you will be given phone numbers of who to contact if you have any questions about your treatment. This should include someone you can contact after normal hours. Be sure to call if you have any concerns, even if you think they are not very important, and especially if you have persistent or severe side effects.

It is perfectly safe to be around other people, including children and pregnant women, when you are having chemotherapy, but you will need to try to avoid contact with people who have infections. This is because your ability to fight infections (your immunity) is not as strong as usual during each chemotherapy cycle. You are most at risk between seven and 14 days after your treatment. Some men choose to avoid very crowded areas during this time to help reduce the risk of getting an infection.

If at any time, you think that you may have a fever or infection it is important to contact the hospital immediately for advice. You can call any time of the day or night and should not wait to see if you feel better. It may be useful to have a thermometer at home to check your temperature. If you do not feel well take your temperature and call the hospital straight away.

A personal experience

"I had a firm telling off by my GP for delaying calling when I had signs of an infection. I learnt my lesson to call even if I think it's something trivial."

You should not have any immunisations with live vaccines during your chemotherapy or for six months after, but it is safe to be around others who have had these types of vaccines. Other immunisations such as the flu jab are safe, but may not give you as much protection as usual. This is because your white blood cells may be low due to your treatment. It is always best to check with your doctor or nurse before having any vaccination.

What are the side effects?

Because chemotherapy attacks cells that are dividing quickly it not only affects the cancer cells but also other healthy cells in the body that divide rapidly. This includes the cells in the lining of the mouth, intestines, hair follicles, finger and toe nails and bone marrow. Chemotherapy can harm these cells and cause side effects. Most of the side effects are temporary and your body will recover once the treatment finishes.

People react in different ways to chemotherapy. Some men may get a lot of side effects whilst others will only have a few. Tell your doctor about any side effects you have so that they can give you treatment to help reduce them.

The most common side effects are described here. There is no way of knowing which of these you will get, or how bad they will be. Ask your specialist about the specific side effects you can expect from the individual drugs that you are having.

Common side effects

Temporary problems with your bone marrow

Chemotherapy drugs affect how well your bone marrow functions. Your bone marrow makes white blood cells, red blood cells and platelets. White blood cells help fight infection and red blood cells carry oxygen from the lungs around the body. Platelets help your blood to clot. During chemotherapy there may be a drop in the levels of these cells. This can mean that:

- You are more at risk of getting an infection. If you get an infection you may become very sick. You should let your doctor or specialist nurse know immediately if you develop any signs of infection such as a high temperature (above 38 degrees), feeling cold and shivery, aching muscles, headaches, cough and sore throat. If you are taking steroids your temperature may not be raised, but you should still contact the hospital straight away if you feel unwell.
- You may experience breathlessness and tiredness, caused by too few red blood cells. If you don't have enough red blood cells you can become anaemic. If this happens, your doctor may delay your next chemotherapy treatment to give your red blood cells time to recover. If your level of red blood cells falls very low, you may need to have a blood transfusion.
- There is an increased risk of bleeding and bruising more easily. This is due to a drop in the number of platelets in your bone marrow. You may notice you have nose bleeds or bleeding gums.

Your doctor or nurse will discuss ways to help you prevent some of the problems that low blood counts can cause. **You should contact your medical team straight away if you develop any of the symptoms described above.**

Fatigue (tiredness)

Many people say that fatigue can be the most difficult side effect to cope with. Fatigue is not just a general feeling of tiredness that goes away with a bit of rest. It can be quite overwhelming and may affect how you function from day to day. It is usually more obvious towards the end of your treatment. Sometimes there is a cause for your tiredness like low levels of red blood cells. Most people find that their energy levels improve after finishing their treatment but this can take a while. For some people it can last longer. If possible, regular gentle walking can help to prevent and improve tiredness. Also, listen to your body. If you feel tired, take a rest, even if it is in the middle of the day.

A personal experience

"My tip would be not to try and fight fatigue, but go to bed and take a proper rest whenever you feel you need to."

Hair loss

This is a temporary side effect of some chemotherapy drugs. Your hair will usually begin to grow back after you have finished treatment.

Sore mouth

Some chemotherapy drugs can make your mouth sore. You can develop ulcers which can be painful. This is because your ability to fight infection is lower than normal. Regular mouth washes and good oral hygiene are very important. Use a soft toothbrush to prevent harming your gums. Your nurses will give you information about mouth care. If your mouth gets very sore your doctor will prescribe pain-relieving drugs to help. You could also try making small changes to your diet such as choosing soft, moist foods and avoiding foods that are acidic or spicy in the short term.

Loss of appetite

You may lose your appetite during

chemotherapy treatment. This may be caused by some of the side effects from treatment such as feeling sick or having a sore mouth. If your appetite is smaller than usual, eating small meals and having regular healthy snacks may help you to get the nutrients you need and stop you from losing weight.

Chemotherapy can cause taste changes and food may taste more salty, bitter or metallic. Taste changes can sometimes cause men to avoid certain foods. If you do not feel like eating much it is important to drink plenty of fluids and to find foods that are more appealing to you. You may find that you prefer foods that you did not usually eat before you started treatment. The steroids that you will be given with your chemotherapy should help with improving your appetite.

A personal experience

'During chemotherapy, I found that most foods tasted a bit funny. Someone advised me to avoid my favourite foods during treatment as their taste would be disappointing and may put me off them. Save your favourite meals for after your treatment has finished.'

If you are finding it difficult to eat meals you can get a prescription from your GP for special drinks that provide extra nutrition. You can also talk to your specialist team if you are having problems eating a balanced diet or if you are losing weight. They may be able to refer you to an oncology dietitian who can give you advice that is specific to your needs.

Feeling and being sick

Chemotherapy drugs can make you feel sick during treatment. There are many anti-sickness drugs (anti-emetics) that can help to control this. These can be taken as injections into the vein, or tablets just before each chemotherapy treatment. You can also take some anti-sickness tablets home with you. It is important to take them as directed by your doctor before meals.

If the smell of food is putting you off eating, try to avoid strong smelling foods. If possible you could also ask someone to prepare and cook your meals for you. Let your specialist team

or GP know if you continue to experience nausea or vomiting.

Other possible side effects

Each individual chemotherapy drug may also have its own particular side effects.

For example, docetaxel causes fluid retention (oedema) in about seven per cent of men (seven out of every 100 men). This means that your hands and feet may swell and you may gain some weight.

If you are having treatment with mitoxantrone, your urine may become a green/blue colour for 24 hours after each treatment.

You may feel a bit down during your treatment. Some people say that they feel sad and negative at certain times during their chemotherapy. This is natural and usually only lasts a short time. However, if you continue to feel very low after your treatment is over you should let your medical team know. You may have depression which is very different to just feeling sad. Do not be afraid to let people know how you are feeling as there are things that can be done to help treat depression.

A personal experience

'My husband kept a daily diary to note down how he felt physically and mentally. It was very useful after each treatment to look back and say, 'Oh, I'd forgotten how I felt two days after the infusion – it was just the same this time.'

What happens after treatment finishes?

When you finish your course of chemotherapy, your doctor will let you know how your progress will be monitored. You will have your prostate specific antigen (PSA) levels measured regularly (usually every three months) and your doctor will ask you about any other symptoms you have. In most cases successful treatment of the cancer depends on lowering your PSA level, or an improvement in symptoms, such as reduced pain. If you have symptoms in between your check-ups it is important to tell your doctor or specialist nurse as soon as possible. In many situations they will be able to help reduce or control any symptoms you have.

If the cancer starts to grow again after you finish your treatment, you and your doctor can discuss whether or not you would like to try a different type of treatment. For example, if you have been given docetaxel previously, you may be offered another chemotherapy drug such as mitoxantrone. It is not recommended that you repeat the same treatment if your cancer grows again. This is because there is currently not enough evidence to show that it will help.

You can also ask your doctor about any clinical trials that you may be able to take part in. However, there is no guarantee that having a second type of chemotherapy will be effective and researchers are still looking into how it can be used.

When making a decision about whether to have further treatment, or which treatment to have, it is important to think about the advantages and disadvantages. Having more treatment may involve further hospital visits, tests and side effects. You may need to think about whether the possible advantages of having more treatment outweigh some of these factors. Everyone is different and will have their own reasons for stopping or continuing with treatment.

If you decide not to have further chemotherapy treatment, or your cancer no longer responds to chemotherapy you and your doctor can discuss what options are available to you.

Where can I get support?

As well as getting medical help to treat your cancer most men find it helps to get some emotional support as well. Feeling more in control of your emotions can help make you feel better.

It is not always easy to talk about how you are feeling. Talking to a partner, friend or relative may help you to cope better and make any decisions about your treatment easier to deal with. By helping people close to you to understand your feelings and concerns they can find a way of supporting you that is right for you.

You may find it helps to talk to your doctor or a specialist cancer nurse at your treatment centre or a Macmillan or Marie Curie nurse. Many of these nurses have counselling training and can help you work through some of your concerns. They also know a lot about advanced cancer and its symptoms and how to manage them. Knowing your options may help to reduce any anxiety you have and can help you make informed decisions about your care. If you do not already have contact with one of these nurses you can ask your GP to refer you to their services.

If you would like to talk to a Prostate Cancer Charity specialist nurse about your treatment or anything you have read in this fact sheet, call our confidential Helpline on 0800 074 8383.

More information

The Prostate Cancer Charity

This fact sheet is part of the Tool Kit. Call our Helpline on **0800 074 8383** or visit our website at www.prostate-cancer.org.uk for more Tool Kit fact sheets, including an **A-Z of medical words** which explains some of the words and phrases used in this sheet.

CancerHelp UK

www.cancerhelp.org.uk

CancerHelp is the patient information website of Cancer Research UK. It contains information on chemotherapy and living with cancer as well as information on taking part in clinical trials.

Macmillan Cancer Support

www.macmillan.org.uk

89 Albert Embankment, London SE1 7UQ

Macmillan Helpline: 0808 808 00 00

Mon-Fri 9am-5pm

Information on coping with cancer and treatment and financial support for people with cancer, family and friends.

Marie Curie Cancer Care

www.mariecurie.org.uk

89 Albert Embankment, London SE1 7TP

Telephone: 020 7599 7777

Freephone: 0800 716 146

Marie Curie run hospice centres throughout the UK and provide a nursing service for patients in their own home day and night, free of charge.

National Institute for Health & Clinical Excellence (NICE)

www.nice.org.uk

Order line: 0845 003 7783

Email: publications@nice.org.uk

NICE produce guidelines on the use of docetaxel (Taxotere) for prostate cancer (quote ref. N1056).

UK Prostate Link

www.prostate-link.org.uk

UK Prostate Link helps you find and compare reliable information about all aspects of prostate cancer, including chemotherapy.

Questions to ask your doctor

- What is the aim of this treatment?
- Which drugs would be most suitable for me?
- How long will the treatment last? How many cycles will I need?
- What are the possible side effects of the drugs, and how long will they last?
- What happens if the chemotherapy drugs don't work? Are there other treatments I can have?
- Are there any clinical trials I can take part in?
- Are there any other treatment options available to me?
- Who should I contact if I have any questions at any point during my treatment? How do I contact them?
- Who will follow my care up after my treatment finishes?

The Prostate Cancer Charity makes every effort to make sure that its services provide up-to-date, unbiased and accurate facts about prostate cancer. We hope that these will add to the medical advice you have had and will help you to make any decisions you may face. Please do continue to talk to your doctor if you are worried about any medical issues.

The Prostate Cancer Charity funds research into the causes of, and treatments for, prostate cancer. We also provide support and information to anyone concerned about prostate cancer. We rely on charitable donations to continue this work. If you would like to make a donation, please call us on 020 8222 7666.

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	<p>Free and confidential Helpline 0800 074 8383* Mon - Fri 10am - 4pm, Wed 7pm - 9pm</p>
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Email: helpline@prostate-cancer.org.uk

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* Calls are free of charge from UK landlines. Mobile phone charges may vary. Calls may be monitored for training purposes. Confidentiality is maintained between callers and The Prostate Cancer Charity.

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References to sources of information used in the production of this fact sheet are available on our website.

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